AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of forming an image of a sample, comprising:

forming an image of a mixture, by exposing the mixture to electromagnetic radiation;

wherein the mixture comprises the sample and plasmon-resonant nanoparticles, [[and]]

wherein the electromagnetic radiation is in the frequency range of infra-red to ultraviolet light, and

wherein the plasmon-resonant nanoparticles are anisotropic metallic nanoparticles.

2. (Original) The method of claim 1, wherein the forming of the image is by a method selected from the group consisting of optical coherence tomography, light microscopy, holography, confocal microscopy, polarization microscopy, interference microscopy, multi-photon microscopy, and endoscopy.

3. (Original) The method of claim 1, wherein the forming of the image is by optical coherence tomography.

4. (Original) The method of claim 1, wherein the plasmon-resonant nanoparticles comprise a metallic nanospheres.

5. (Original) The method of claim 4, wherein the metallic nanospheres comprise gold.

6. (Cancelled)

7. (Currently Amended) The method of claim [[6]]1, wherein the anisotropic metallic nanoparticles comprise nanorods or nanotriangles.

8. (Currently Amended) The method of claim [[6]]1, wherein the anisotropic metallic nanoparticles comprise gold.

9. (Currently Amended) The method of claim [[6]]1, wherein the anisotropic metallic nanoparticles further comprise a surface modification.

10. (Currently Amended) The method of claim [[6]]1, wherein the anisotropic metallic nanoparticles comprise a magnetic metal.

11. (Original) The method of claim 10, wherein the magnetic metal comprises at least one member selected from the group consisting of nickel, cobalt, and iron.

12. (Original) The method of claim 9, wherein the surface modification comprises a cross-linked surfactant shell.

13. (Original) The method of claim 12, wherein the cross-linked surfactant shell comprises at least one member selected from the group consisting of cross-linked resorcinarenes and cross-linked olefin.

14. (Original) The method of claim 13, further comprising, attached to the cross-linked surfactant shell, at least one member selected from the group consisting of folate, a monoclonal antibody, and a membrane receptor ligand.

15. (Original) The method of claim 10, further comprising exposing the mixture to a magnetic field.

16. (Original) The method of claim 10, further comprising exposing the mixture to an electric field.

17. (Original) The method of claim 2, wherein the sample is a patient.

18. (Original) The method of claim 3, wherein the sample is a human patient.

19. (Original) A method of destroying tissue, comprising:

administering metallic anisotropic nanoparticles to the tissue to form a mixture; and

subjecting the mixture to electromagnetic radiation.

20. (Original) The method of claim 19, wherein the electromagnetic radiation is in the frequency range of infra-red to ultraviolet light.

21. (Original) The method of claim 19, wherein the tissue is human.

22. (Original) In a method of forming an image by optical coherence tomography, including exposing a patient to electromagnetic radiation, collecting reflected electromagnetic radiation, and forming an image from the collected electromagnetic radiation, the improvement comprising administering anisotropic metallic nanoparticles to a patient to enhance contrast of the image,

wherein the anisotropic metallic nanoparticles are gold nanorods with a magnetic tip.

23. (Original) The method of claim 22, wherein the gold nanorods have an aspect ratio of 4:1 to 10:1 and a diameter of 10 nm to 100 nm.

24. (Original) The method of claim 22, wherein the magnetic tip is one metal selected from the group consisting of cobalt, nickel, and iron.

25. (Original) The method of claim 22, wherein the patient is a human.

26. (Original) A method of forming an image of a sample, comprising: forming an image of a mixture, by exposing the mixture to electromagnetic radiation;

wherein the mixture comprises the sample and metallic nanoparticles and the metallic nanoparticles comprise at least one member selected from the group consisting of gold, silver and copper.

27. (Original) The method of claim 26, wherein the electromagnetic radiation is in the frequency range of infra-red to ultraviolet light.

28. (Original) The method of, claim 26, wherein the forming of the image is by optical coherence tomography.

29. (Original) The method of claim 26, wherein the metallic nanoparticles comprise metallic nanospheres.

30. (Original) The method of claim 26, wherein the metallic nanoparticles comprise anisotropic metallic nanoparticles.

31. (Original) The method of claim 30, wherein the anisotropic metallic nanoparticles comprise nanorods or nanotriangles.

32. (Original) The method of claim 30, wherein the anisotropic metallic nanoparticles further comprise a surface modification.

33. (Original) The method of claim 32, wherein the surface modification comprises a cross-linked surfactant shell.

34. (Original) The method of claim 33, wherein the cross-linked surfactant shell comprises at least one member selected from the group consisting of cross-linked resorcinarenes and cross-linked olefin.

35. (Original) The method of claim 34, further comprising, attached to the cross-linked surfactant shell, at least one member selected from the group consisting of folate, a monoclonal antibody, and a membrane receptor ligand.

36. (Original) The method of claim 30, wherein the anisotropic metallic nanoparticles comprise a magnetic metal.

37. (Original) The method of claim 36, wherein the magnetic metal is nickel, cobalt, or iron.

38. (Original) The method of claim 37, further comprising exposing the mixture to a magnetic field.

39. (Original) The method of claim 37, further comprising exposing the mixture to an electric field.

40. (Original) The method of claim 26, wherein the sample is a human patient.